

Evaluation of heat transporting losses due to changes of insulation properties during operation

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Abstract

© 2018 Institute of Physics Publishing. All rights reserved. The need for measuring the thermal conductivity of various materials exists in different fields of science and industry. First of all, it relate to constructing and power engineering. Thermal control allows evaluating the thermal insulation properties of the structure, identifying problem areas and assessing the energy efficiency of the pipeline. The paper assesses the transporting heat losses taking into account the actual operating conditions of the pipelines and the heterogeneity of the thermal insulation properties. A number of experiments were carried out. Experiments have shown that the destruction of insulation properties depends on such factors as the surface temperature of the pipe, the humidity of the environment, the service life.

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